

A DISCOURSE

UPON

AGRICULTURE:

AT A MEETING OF THE CITIZENS OF OXFORD, AND VICINITY,
CHESTER COUNTY, PENN, ASSEMBLED FOR THE
PURPOSE OF FORMING AN AGRICULTURAL
SOCIETY, SEPTEMBER 4, 1847.

BY WILLIAM DARLINGTON, M. D.

And he gave it for his opinion, "that whoever could make two ears of corn, or two blades of grass, to grow upon a spot of ground where only one grew before, would deserve better of mankind, and do more essential service to his country, than the whole race of Politicians put together."—*Gulliver's Travels*.

Oxford Borough, Sept. 4, 1847.

DEAR SIR:—The citizens of Oxford, and vicinity, having heard the able and very interesting Lecture delivered by yourself this afternoon, have appointed the undersigned a Committee to solicit a copy thereof for the purpose of publication. Should you, as we trust you will, be pleased to comply with their request, you will not only afford them and us great gratification,—but, as we believe, do much to excite an interest in and promote the great business of our Country—the cause of Agriculture.

Very respectfully, &c.

E. V. DICKEY,
D. W. HUTCHISON, } Committee.
JAMES MONAGHAN,

Dr. WILLIAM DARLINGTON.

Sept. 4, 1847.

GENTLEMEN:—I have had the honor to receive your polite note, of this date, soliciting a copy of the Agricultural Address for publication. It is impossible to deny a request, so kindly and so flatteringly made: though I must say, the trite character of the Discourse renders its pretensions to such a distinction exceedingly questionable.

With my best wishes for the success of your projected Institution,

I am, very respectfully, &c.

WM. DARLINGTON.

Messrs. E. V. DICKEY,
D. W. HUTCHISON, } Committee.
JAMES MONAGHAN,

A DISCOURSE, &c.

GENTLEMEN :

Having, on some previous occasions, uttered all that I really had to say, in reference to the noble pursuit in which you are engaged,—I had arrived at the very natural conclusion, that I was finally done with the subject: But a call for a renewed evidence of my good will to the cause, proceeding from a district of my native County in which Agricultural skill and enterprise are so conspicuous, was found to be irresistible,—notwithstanding my conscious inability to respond, in appropriate terms, to the flattering invitation. Were it as practicable to renovate an exhausted intellect, as it is to restore verdure and fertility to a worn-out soil, the demonstrations of successful culture, in this vicinity, might almost warrant a hope of reproducing before you—with something of original freshness—the results of past observations and reflection:—for, in truth, I can but serve up, anew, thoughts and opinions which have been long entertained, and repeatedly expressed. It is vain, however, to apply the theory of terrestrial culture to cases of intellectual exhaustion; and therefore I must rely entirely upon your good nature, to tolerate the repetition of views which have been heretofore presented to my Agricultural fellow citizens.

In complying with the request to prepare a Discourse for this occasion, there was an additional motive to the

effort, in the recollection that a goodly portion of the improvement, every where so visible in this region, owes its introduction to the discernment, skill, and persevering energy of a departed Friend, whose memory is deservedly dear to all who knew him,—and will be especially cherished in the district where his example was so beneficial to all around him. I have long felt that some tribute, or testimonial, was due to the memory and services of one who did so much for the advancement both of Agriculture and Manufactures; and the present seemed a fitting opportunity for an attempt to discharge that duty. To the older residents of the vicinage, it will be unnecessary to say, that my allusion is to the late Col. DAVID DICKEY,—a man whose uprightness, sagacity, and active public spirit, rendered him an ornament and a benefactor to the community in which he lived. It was my happiness to know him well: and the last public employment in which either of us was engaged, made it my agreeable duty to serve as his colleague, in a joint commission from the several counties traversed by the *State Road*,—which, passing in our midst, extends from New Jersey to the Maryland line. That service, I have the satisfaction to believe, was performed in a manner generally acceptable to those concerned: and it is but justice to the memory of my lamented colleague, to say, that much of the value of that performance was owing to the same zeal, activity, and sound judgment, which he had previously displayed in his agricultural improvements. His was, emphatically, one of those enterprising spirits which are sent among us from time to time—and as it were providentially—to demonstrate, and to teach thoughtless, sluggish mortals, how much an *Individual* may accomplish, in promoting the welfare of our race. But if *Individuals*, by their isolated efforts and example, can exert such a salutary influence upon the community—what may we not hope from the

joint labors of *associated* intelligence? It will scarcely be questioned, I think, that we were designed for social beings. Man is, by nature, a gregarious animal,—and evidently intended for the performance of mutual good offices. Even in his rudest condition, he soon learns the importance of co-operation with his fellows in producing desired results: and as he advances in civilization and refinement, he discovers that the benefits to be derived from combined skill and energy are in a direct ratio with his progress in improvement. The developments of Science not only excite a salutary emulation among individuals,—but they also show how much more may be accomplished by a concentration of effort—by a skilful union, and concert, of individual talent and energy.—Hence the resort to *Societies*, for the promotion of desirable objects. By a judicious combination of their several means, and capacities, in the mode best suited to render them all available, men have accomplished purposes which, *individually*, they could never hope to perform.

Associated efforts having been found thus valuable, in all great works of Art, requiring skill and force—and in the prosecution of researches after Scientific Truth,—the inquiry is naturally suggested, why the important business of *Agriculture* may not, also, be benefitted by a resort to similar expedients. 'Is there no sort of knowledge involved in successful Agriculture, which may be reciprocated, with good effect, among the members of a Society—or promoted by a generous co-operation? Is there no scientific or practical skill requisite, in the amelioration of soils—the culture of plants—or the management of stock—which may be advantageously imparted by the experienced, for the benefit of young beginners? If there are truths in Nature, which farmers are interested to know—or processes in Art, wherein dexterity and economy are desirable,—can any good reason be assigned why the cul-

tivators of the soil should not associate, to secure to themselves those advantages? It may, perhaps, be alleged,—for the unreflecting do often make such random allegations,—that Agriculture is essentially a *practical* Profession; and therefore has little occasion for artistical skill, or scientific accomplishments. I am prepared to admit all that can be fairly urged in behalf of sound experience' and plain practical common sense—not only in Agriculture, but—in all human pursuits. I grant that the cultivation of the soil is eminently a matter-of-fact business. It is true, moreover, that the veriest clod-poll in the land may pursue the beaten track of his annual labors with tolerable success,—and may gather in his crops with little more knowledge, of the objects around him, than is possessed by the cattle he drives: But I can never believe that *true knowledge* is injurious to the operatives, or to the interests, of any profession, or business;—nor can I be persuaded that boorish ignorance is the proper condition and character of a thorough-bred Agriculturist. Most assuredly, it is not the appropriate character of an AMERICAN FARMER. While I not only agree, but would insist, that a sound *practical* knowledge of their profession should be the primary object of the cultivators of the soil,—I must, at the same time, contend for the feasibility and necessity—in the existing state of society, and under Institutions like ours—of an adequate acquaintance with the laws of nature, and with the properties and true character of the objects immediately concerned in Agriculture.—That acquaintance, of course, should be based on correct scientific principles,—so as to be always available when applied to the useful purposes of life. I hold it, indeed, to be essential to the safety and duration of this Republic, that our *Yeomanry* should keep pace with the march of general intelligence. As they value their just rights, and would cherish the attributes of Freemen, they must take

care that their attainments never lag behind the age in which they live,—nor they, themselves, become unfit to mingle, and to struggle, with the master spirits who, for good or for evil, are ever seeking to direct the course and control the progress of communities. *Agriculturists* being a majority of this nation, it is perfectly obvious that they must be either the intelligent regulators of its glorious career,—or the blind instruments of its destiny in the hands of artful Demagogues;—and consequently they will be held responsible for the fate of the Republic, by their remotest posterity. Ought they not, then, to employ every means, and exert every nerve, to qualify themselves for the high duties thus devolved upon them? /

There is nothing unreasonable, nor extraordinary, in the acquirements thus indicated as appropriate and indispensable to the *American Farmer*. In a nation fitted for Freedom—or which hopes to continue free—such attainments are enjoined upon all classes and descriptions of the People.* Where men stand unfettered on the platform of equal rights, it is justly expected of every one, that he shall qualify himself to meet all the responsibilities belonging to his station in society: and this is eminently true of the particular business to which he is devoted. The remark is as correct as it is pointed and forcible, that “where knowledge is a duty, ignorance is a crime.” No man should be held excusable for neglecting the opportunity to inform himself of that which it is his interest and his duty to know. *Professional men*, so termed, are bound to be familiar with the entire history, and with every department, of their several callings. The *Jurist* must make himself acquainted with the intellectual processes whence

* We have the authority of that excellent man, and accomplished friend of human rights, Sir WILLIAM JONES, for the opinion—that “The principles of government are so obvious, and intelligible, that a clown may be brought to understand them.”

our present *rule of action* has been deduced,—in order that he may correctly apply that rule to all cases of difficulty between man and man. The *Physician* is required to know the structure of the human body, and to understand the laws of the animal economy,—so that he may avail himself of that knowledge, when called upon to relieve the various “ills that flesh is heir to”: And the *Divine*, also—whose sacred office it is to minister to our spiritual wants,—to expound the objects of our probationary existence here, and “vindicate the ways of God to man,”—even he is expected to furnish “a reason for the faith that is in him.” *Artists*, and operatives of every description, who would adorn their several pursuits, find it necessary to understand the *theory*, or principles, involved in their manipulations,—as well as to become expert in the practical details. Such being the unquestionable fact, in reference to all other vocations,—it may well be demanded, why the business of *Agriculture*—itself a comprehensive system of Natural Science, involving more or less an acquaintance with all physical laws, and all terrestrial phenomena—and being moreover the great substratum and support of every other human pursuit,—*why should Agriculture, alone*, of all earthly employments, be regarded as calling for no scientific attainments—no intelligent observation of the varied natural objects, the interesting facts, and curious processes, around us: in other words—no rational exercise of the intellectual faculties with which a beneficent Creator has endowed us? It was, indeed, wisely provided, that an art to which the whole human family is indebted for sustenance, should be so simple in its essential features, that even stupidity can make a living, and mere muscular energy be profitably employed, in its prosecution: But, in the nature of things, it cannot be, that a business involving so much of Natural History—and controlled by so many of the laws indelibly impressed

upon matter,—it can never be predicated of such a pursuit, that a knowledge of its true principles is superfluous—nor that its best interests may not be promoted by a cultivated Intellect. I shall therefore assume, as an established position, that a knowledge of the Profession, *in all its relations*, is requisite to ensure the perfection of Agriculture, and to elevate it to its proper rank: and moreover, that in a country where Laws rule, and the Yeomanry have a potential voice in their enactment, it is indispensable to the perpetuity of their Institutions, that an Agricultural people should be an educated and an intelligent people.

I shall not venture, on this occasion, to trespass upon your patience, by dwelling on the practical details of the farmer. I shall make no idle attempt to entertain *you*, by descanting on the culture of fields, or the management of Stock. Instead of essaying, *here*, to teach those first lessons in the art of giving fertility to the soil, it would become me rather to seek instruction from those who have so happily demonstrated how it can be done. I have not now to learn, that *this* is precisely the district, of our County, where a renovating Agriculture has achieved its greatest triumphs. I shall, therefore, avoid the well-understood topics of Lime, and Manures, and the rotation of crops: and will solicit your indulgence, for a few moments, while I advert to the expediency of promoting some of the more intellectual qualifications of the Farmer,—those interesting attainments which give an appropriate finish to the Agricultural character, and impart an additional dignity and grace to the Profession.

This, indeed, has been a favorite theme, with me, on occasions like the present: for wherever *practical* excellence was known to be established, my attention was naturally directed to those ulterior accomplishments—hitherto so little regarded—and yet, in my judgment, so

worthy to be superadded. When the intelligent young Farmer has become expert in all the *manual* operations of his Profession, and understands the whole *practical routine* of Agriculture,—what can more appropriately claim his attention, than the intimate nature—the structure or composition, the properties and relations—of the various objects involved in his pursuit? Why should he not make himself acquainted—*scientifically* acquainted—with the character of the several *Earths* which compose the soil he cultivates? Knowledge of that description—and sufficient for all useful purposes—is readily acquired by the mind that craves rational intelligence; and when once obtained, may often be turned to good account by its possessor. It may not only enable him to become a more successful cultivator—but it will also greatly enhance his interest in his employments,—rendering him a wiser and a happier man. / The occupation of the Farmer, as already remarked, is emphatically with the objects of *Natural History*; and the contemplation of those objects, by an observing and disciplined mind, is a continual source of instruction and gratification. His studies, indeed, are mainly *utilitarian*, in their character,—but, if rightly directed, are calculated to expand and elevate his views of the Creator's works: for they embrace, to some extent, the three grand divisions of the material world—the Mineral, the Vegetable, and the Animal kingdoms. The first business of the skilful Agriculturist, is with the inorganic matter of the *Mineral* kingdom,—so far, at least, as may be requisite to understand the quality of the *soil*, and the best mode of improving and managing it—so that it shall sustain the greatest amount of organic life. His next care will be extended to the primary *organized* beings,—viz. the *Vegetable* creation;—so regulating the production as to secure the largest contribution towards the sustenance of the most valuable animals. This is *Agriculture*,

in a technical and restricted sense (i. e. *the culture of the fields*),—and implies, of course, an acquaintance with the *Plants* cultivated—or a portion of what is denominated *Botanical* science. But the end and aim of the Farmer's operations, in the promotion of vegetable growth, is to support the higher organization of the *Animal* kingdom,—and, by the multiplication of his flocks and herds, to enhance the comforts, and favor the increase, of the human family. Hence the science of *Zoology* is involved,—and the wonderful laws of the animal economy present a claim to be studied and understood. Thus it is manifest, that the Farmer is directly interested in possessing *some* knowledge of the three great kingdoms in Nature; and it will scarcely be doubted that his knowledge, of whatever extent, will be valuable in proportion to its *scientific accuracy*.

I would, therefore, exhort our young Farmers to acquire so much Natural Science as will enable them certainly to know, and to discriminate between, the more important objects of their daily care and attention,—and by means of which they may also treat of those objects intelligently, and correctly, in their intercourse with others. They should be so far acquainted with *Geology*, and *Minerals*—and understand so much of *Chemistry* and its laws—as to have a general idea of the structure and stratification of the Earth's crust, and a just conception of the reciprocal influences exerted by the constituent portions of the soil, and the atmosphere. This information may now be readily obtained, from elementary works within the reach of every one who has the taste or the inclination to possess it: But, that all might have a fair and equal opportunity to profit by such knowledge, according to their several capacities, it should be made an indispensable branch of the education of Youth, and faithfully imparted, by competent teachers, to every child in the Republic.

Until such instruction shall be provided, it may be confidently maintained, that no better substitute can be devised, than is afforded by the intercourse of intelligent, public-spirited men, in well-conducted *Associations*.

Similar remarks may be applied to the expediency of a reasonable acquaintance with the *Vegetable*, and the *Animal* kingdoms. What sort of an Agriculturist is he—in this age, and country—who is so ignorant of the interesting *Plants*, on his own farm, as to be continually overlooking the most pernicious weeds, when they invade his premises—or mistaking, for them, those of a comparatively harmless character;—and who knows so little, even of those he annually cultivates, as to be unable to designate them by a name that is certainly comprehended, beyond the limits of his native parish? Is the young American Farmer, who can rest contented with such imperfect intelligence in his immediate Profession,—is *he* calculated—in this progressive era—to advance the interests, or maintain the appropriate rank, of that first, and noblest, and most indispensable of secular employments? Surely, it ought not to be thus with *Agriculture*—when all the kindred Sciences are going ahead with rail-road velocity. The several departments of knowledge are auxiliary to each other. They reciprocate lights, by which their obscurest truths are illustrated. They should, therefore, all proceed with equal step. It is not necessary—neither would it be expedient—for the practical Farmer to spend his time in studying the unimportant species of the vegetable creation,—nor in tracing the distinctive features of all the various tribes—“from the cedar tree that is in Lebanon, even unto the hyssop that springeth out of the wall”: But, as his business is especially with the more interesting kinds—with the *culture of useful plants*, and the *extirpation of pernicious weeds*,—I hold it to be his duty to acquire a knowledge of *these*; and such a knowledge,

too, as shall be adequate, both to the proper management of them, and to the delineation, when called for, of their true botanical character. This would be a limited task, and an easy attainment,—quite within the reach of every ordinary capacity. Some three or four hundred species, comprise all the more important plants usually observable on our farms—whether in the forest, the fields, or the kitchen-garden; and it must be an obtuse intellect, indeed, which cannot learn to know and distinguish that number of vegetable forms. The juvenile pupils of some of our Female Seminaries are, every year, demonstrating the facility with which the task may be performed.*

I shall not detain you with observations concerning the importance of *Zoological* information: for *that* is a kind of knowledge so intimately connected with our prosperity and comfort, that we cannot well avoid the acquisition of a reasonable share,—at least, with reference to the larger animals which are domesticated, or indispensable on the farm. Our daily habits and associations force the attainment on us all. The rudest bumpkin that ever heedlessly trampled upon flowers—or worked among weeds, without being able to distinguish one from another,—is nevertheless compelled to become acquainted, in some degree, with both the valuable and the mischievous animals,—fowls, as well as quadrupeds: indeed, it is wonderful to observe how well, and thoroughly, such untutored persons do often learn the distinguishing traits—the dispositions,

* It may, perhaps, be admissible to mention, here, that I have recently compiled a sort of *Farmer's Flora*,—or a descriptive enumeration of those Plants which are most interesting to the American Agriculturist—and of which it is scarcely reputable to be ignorant. It was prepared in the hope of thereby promoting a kind of knowledge which I have long thought desirable,—and is designed more especially for the use of our enterprising *young Farmers*. I would beg leave to add, however, that I have not the slightest personal, or pecuniary interest, in the success of the work;—for I made a *Present* of the Manuscript to the first Printer I found, who had the courage to risk the publication.

and the characteristic peculiarities—of animated nature. Still, there is a *scientific aspect*, of which every department of Natural History is susceptible,—under which it assumes a methodical perspicuity—an illustrative arrangement—which is exceedingly gratifying, as well as instructive,—and merits the attention of all inquiring minds. There is, moreover, a *branch* of Zoology,—embracing myriads of tiny creatures—and many of them of the most destructive character to the hopes of the Farmer,—which is yet imperfectly understood, and demands the closest scrutiny of every one concerned in the products of the vegetable kingdom. I refer, of course, to the multitudinous *Insect* tribes;—some of which are occasionally so injurious as to spread dismay throughout whole nations,—and, at the same time, of habits so obscure as to require the most patient observation, and the utmost sagacity, to ascertain their true history. Even these minute researches—too generally neglected or despised—are demanded by the best interests of Agriculture;—and to be successful, they must be conducted on scientific principles. A little mental discipline, however—backed by perseverance—will soon enable the curious observer of Nature to make valuable contributions to the common stock of information. I would therefore have every *American Farmer*, who can appreciate the responsibilities of his position, to cultivate his intellect with the same care and assiduity that he does his acres. Let him habituate himself to note the facts—to observe the phenomena—and to investigate the theory of the processes—which are continually taking place around him: and let no one delude himself into the belief—nor seek to excuse his deficiencies by the stale and hackneyed plea—that he has not *time* for such pursuits. Why, those very pursuits are part and parcel—and a very important part, too—of his own appropriate business. It is precisely for such business that his *time* is allotted to him. At this day, and in this land, it will not do, to urge the want,

either of time or opportunity, for the due performance of our parts in life. Most people contrive to find time for what they really wish to do; and if driven to the necessity, are apt to *take* it, at any rate, for those pursuits which they are resolved upon. But the fact is, we all idle away, or waste in frivolous amusements, more time than would be requisite to fit us for the performance of our several duties. We are very prone to mistake the real nature of our *wants*. It is not so much to the *want of time*, as to the *want of inclination*, and of a proper sense of our responsibilities, that we should attribute our failure to possess the accomplishments which justly pertain to our Profession, and station in society. It is *this want*—this neglect of the more elevated attainments, and this lack of a just perception of the beautiful—which has, hitherto, been most striking and conspicuous among the Agriculturists of our country. While our Farmers have generally attended—faithfully and successfully—to what is familiarly and truly denominated “the main chance,”—it must be confessed that too many among them have exhibited a lamentable want of tact and skill in planning and improving,—or in availing themselves of natural advantages, in the arrangement of their rural establishments.

Next in importance to successful culture, and a correct knowledge of the objects and principles involved in the process, is the attainment known as good *Taste*,—or that refined sense of the beauties of Nature, which knows how to appropriate her charms, in the embellishment of farm-houses, or cottages—and to invest them with that witchery and grace which should ever be associated with a country residence. No person, who has enjoyed the delights of a tasteful rustic dwelling—embosomed among venerable trees, and reposing amid the verdure of flower-spangled lawns,—can fail to be shocked at the contrast of a rude vulgar-looking tenement, awkwardly stuck in some open

weed-grown space, without a shade-tree, or an enclosure, to protect it from the rays of a burning sun, or the annoying approaches of the trampling cattle: and yet the difference may be entirely owing to the exercise of a cultivated taste in the one case, and a total destitution of it in the other. *Fruit trees*, and *Shade trees*, should be regarded as indispensable appendages of every human residence. If duly attended to, the former will amply gratify the palate,—while the latter will also minister to our enjoyment—directly, by the refreshing shelter afforded to ourselves—and indirectly, by attracting to their branches the lovely Serenaders of the feathered race. How delightful, in a tree-embowered cottage, to be roused from our slumbers by the gushing melodies, which, in such abodes, ever greet the dawn of a summer morning! By providing a shady retreat for the little warblers—and protecting them from the weapons of reckless sportsmen—we not only secure their punctual attendance, with the grateful tribute of their vocal strains, on each returning Spring,—but we are rewarded, tenfold, for all such benevolent offices, by the industry with which the welcome visitors labor to rid us of annoying and destructive Insects. It should, therefore, be the business and the pleasure of the intelligent Farmer—wherever located—thus to improve and adorn his premises. In a region so rich in native attractions, as our own favored *County of Chester*, it should be the study and ambition of every occupant of her soil, to develop all her Agricultural resources,—to acquire for himself, the knowledge and scientific skill which rightfully belong to his Profession,—and, by the exercise of a refined taste, to make our ancient Bailiwick as eminent for the beauty of her Country Seats, as she has long been for the neatness and fertility of her cultivated fields.